

# z/VSE News

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Ingolf's z/VSE Blog: <https://www.ibm.com/developerworks/mydeveloperworks/blogs/vse>

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## *Agenda*

- Roadmap
- z/VSE 5.1 key functions
- z/VSE 5.1 additional enhancements
- CICS Explorer
- z/VSE 5.1.2

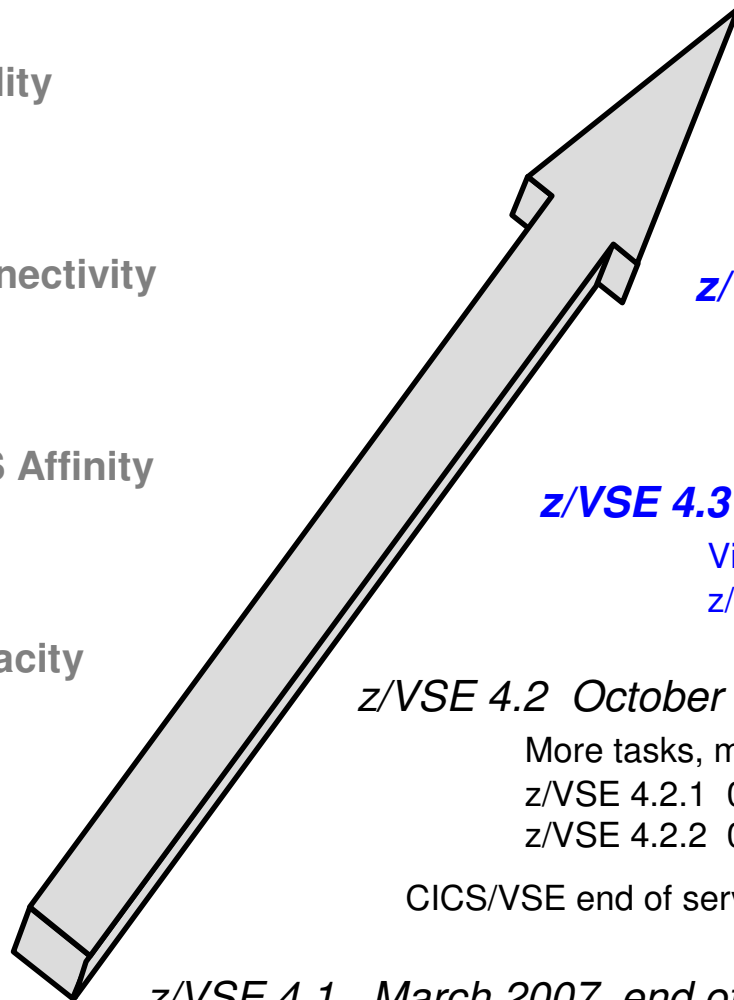
## VSE Roadmap

Quality

Connectivity

z/OS Affinity

Capacity



### **z/VSE Statement of Direction (SOD)**

Install from DVD  
CICS Explorer update

### **z/VSE 5.1.1 (+ Enhancements) GA 06/14/2013**

TS1140, 64 bit I/O, openssl and  
database connector enhancements

### **z/VSE 5.1 GA 11/25/2011**

64 bit virtual, zEnterprise exploitation, z9 or higher  
z/VSE 5.1.1 06/2012: CICS Explorer, LFP in LPAR,  
database connector

### **z/VSE 4.3 11/2010, end of service 05/31/2014**

Virtual storage constraint relief, 4 digit cuus  
z/VSE 4.3.1 08/2011

### **z/VSE 4.2 October 2008, end of service 10/31/2012**

More tasks, more memory, EF for z/VSE 1.1, CPU balancing, SCRT on z/VSE  
z/VSE 4.2.1 07/2009 - PAV, EF for z/VSE 1.2  
z/VSE 4.2.2 04/2010 - IPv6/VSE 05/2010

CICS/VSE end of service 10/31/2012

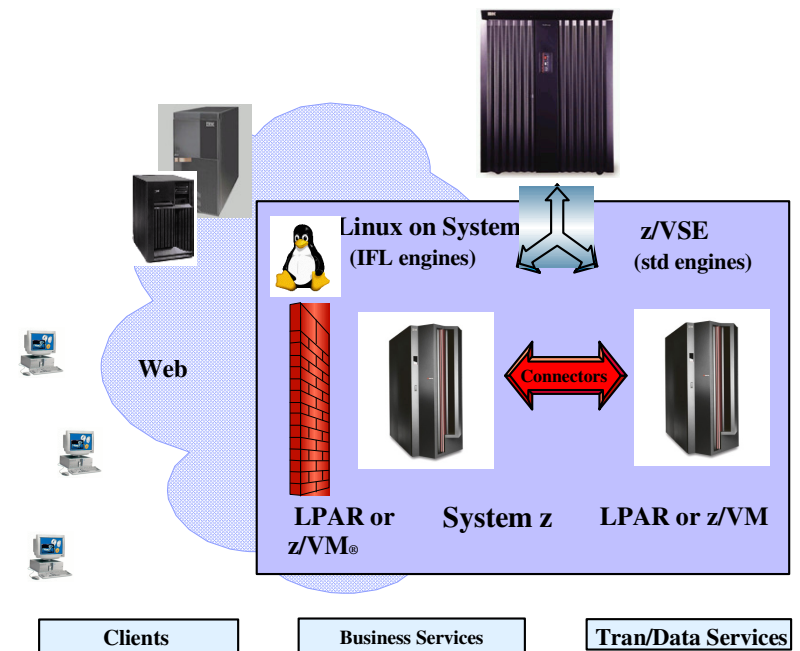
### **z/VSE 4.1 March 2007, end of service 04/30/2011**

z/Architecture only, 64 bit real addressing, MWLC – full and sub-capacity pricing

## VSE Strategy

- Helps **Protect** your existing investments in core VSE programs, data, equipment, IT skills, *plus* business processes, end user training, etc.
  - modernize, i.e. extend VSE resources to Web
  - exploit IBM servers, storage, and software
  
- **Integrate** VSE with the rest of your IT based on open and industry standards
  - (IBM) middleware
  - VSE connectors and web services
  
- **Extend** with Linux on System z
  - infrastructure consolidation/simplification
  - add new infrastructure and/or line-of-business applications

## Why Not Think Inside the Box?



## *z/VSE V5.1*

- z/VSE 5.1: Preview 04/12/2011, Announcement 10/12/2011, GA 11/25/2011
- z/VSE 5.1.1: GA 06/15/2012, z/VSE 5.1.2: GA 06/14/2013
  
- 64-bit virtual addressing
  
- Introduces Architectural Level Set (ALS) that requires System z9 or later
  
- IBM zEnterprise support (z196, z114, zEC12, zBC12)
  - Support Static Power Save Mode for MWLC clients with subcapacity option (z196, zEC12 only)
  - 4096-bit RSA keys with Crypto Express3 for enhanced security
  - Support of OSA-Express for zBX (CHPID OSX) to participate in an Intra Ensemble Data Network (IEDN) in z/VM guest or LPAR
  
- Exploitation of IBM System Storage options
  - Copy Export function of TS7700 Virtualization Engine for disaster recovery
  - Multi-Cluster Grid support of the TS7700 Virtualization Engine Series (TS7700)
  - IBM Storwize V7000 Midrange Disk System (z/VSE 4.2 and later)
  - IBM XIV (z/VSE 4.2 and later)
  
- Fast Service Upgrade (FSU) from z/VSE 4.2 and z/VSE 4.3
  
- Pricing
  - Midrange Workload License Charge (MWLC) pricing with sub-capacity option
  - z114: Advanced Entry Workload License Charge (AEWLC) pricing with sub-capacity option

## *z/VSE V5.1*

- Networking enhancements
  - IPv6 support for Linux Fast Path
  - z/VSE z/VM IP Assist (VIA) exploitation
  - TCP/IP communication using Layer 2 (Data Link Layer)
  - Virtual Local Area Network (VLAN) support for OSA Express and Hipersockets
    - Global VLAN supported by TCP/IP for VSE/ESA and IPv6/VSE
    - General VLAN supported by IPv6/VSE
- IPv6/VSE
  - Large TCP window support, can increase throughput
  - 64 bit virtual exploitation, large TCP window storage allocated above the bar
  - Layer 2 support (OSA Express, IPv6 only)
  - VLAN support
- System management enhancements
  - SNMP Trap Client Extension monitoring – API
- High availability and disaster recovery enhancements
  - Copy Export function of TS7700 Virtualization Engine for disaster recovery
  - Multi-Cluster Grid support of the TS7700 Virtualization Engine Series (TS7700)
  - GDPS (Geographically Dispersed Parallel Sysplex) client (in a z/VM guest)
    - z/VSE supports heartbeat only
    - GDPS K-system can only monitor z/VSE
    - GDPS K-system can manage z/VM and therefore can manage z/VSE indirectly

## *z/VSE V5.1 ...*

- System enhancements

- Language Environment enhancements

- PL/I multitasking enhancements
    - C run-time socket API to include IPv6 related functions
    - Callable service sample for programs
    - Additions to system programmer C samples
    - Updated LE/C support for Librarian Members, and updates to the CEETRACE utility.

- E-business connector enhancements

- VSE Script Connector to support LIBR access

- VSE/POWER

- Token as new job attribute to address spooled output

- VTAPE enhancements

- VTAPE Auto Close at EOJ dependent on new SCOPE keyword
      - SCOPE= SYSTEM or JOB

- TAPE UNLOAD at EOJ (TAPE UNL=EOJ)



## *z/VSE 5.1 Additional Enhancements 2012*

- IBM z/VSE V5.1 - Additional enhancements: Announced 04/03/2012, GA 06/15/2012
- CICS Explorer for z/VSE
- Linux Fast Path in LPAR
- Linux Fast Path via z/VSE z/VM IP Assist (z/VSE VIA)
- z/VSE database connector
- VSE/POWER enhancement to ease job output handling (IPWSEGM to generate duplicates)
- IBM System Storage Tape Controller 3592 Model C07
- New symbolic parameter IJBVMID containing the z/VM userid if running on z/VM)
- PTFs: GA 11/2012
  - 64-bit input/output (I/O) processing for applications
  - IPv6/VSE V1.1 enhancements
    - Secure Sockets Layer (SSL) for secure data transmission
    - Layer 2 support for OSA Express devices for IPv4 links

## *IBM zEnterprise exploitation*

- 64 bit real addressing - up to 32 GB (System z)
- 64 bit virtual virtual addressing – up to 90 GB (System z)
  
- Large page support (z10, zEnterprise)
- Dynamic add / remove of logical CPs (z10, zEnterprise)
  
- Linux Fast Path (LFP) in z/VM mode LPAR (z10, zEnterprise)
- Exploitation of the z/VSE z/VM IP Assist (zEnterprise)
  
- 4096-bit RSA key support with configurable Crypto Express3 (z10, zEnterprise)  
.... and Crypto Express4S (zEC12, zBC12) – z/VSE 5.1 only
  
- zEnterprise and zEnterprise BladeCenter Extension (zBX) support
  - “native” Intra Ensemble Data Network (IEDN)
  - Virtual LAN support
  - Layer 2 support
  - IEDN communication using the z/VM VSWITCH
  
- HiperSockets Completion Queue on z196, z114, zEC12 (z/VSE 5.1.1)
  
- Static power save mode supported for SCRT (z196, zEC12)
  
- zEC12 / zBC12 does not support ESCON channels

## VSE Support for System z

VSE Release	z800 / z900	z890 / z990	System z9 / z10 / z196 / z114 / zEC12	VSE EoS
z/VSE V5.1	No	No	Yes	tbd
z/VSE V4.3	Yes	Yes	Yes	05/31/2014
z/VSE V4.2	Yes	Yes	Yes	10/31/2012
z/VSE V4.1	Yes	Yes	Yes	04/30/2011
z/VSE V3.1	Yes	Yes	Yes	07/31/2009
VSE/ESA V2.7	Yes	Yes	Yes	02/28/2007
VSE/ESA V2.6	Yes	Yes	Yes	03/2006
VSE/ESA V2.5	Yes	No	No	12/2003
VSE/ESA V2.4	Yes	No	No	06/2002
VSE/ESA V2.3	No	No	No	12/2001

## *Encryption Facility for z/VSE*

- Optional priced feature for VSE Central Functions
- Supports the use of SAM files, VSE/VSAM files, VSE library members, tapes, virtual tapes as input or output
- Requires CP Assist for Cryptographic Function (CPACF)
  - no charge feature, only on z890, z990, z9, z10, z114, z196, zEC12, zBC12 servers
- Extends affinity between z/VSE and z/OS
  - Function roughly equivalent to EF for z/OS 1.1
  - Compatible with EF for z/OS V1.1 (Encryption Facility System z format)
    - EF for z/VSE tapes can be read by EF for z/VSE, EF for z/OS, EF for z/OS Java Client, and Decryption Client for z/OS,
    - EF for z/OS V1.1 and EF for z/OS Java client tapes can be read by EF for z/VSE
- EF for z/VSE 1.2
  - Supports z/VSE 4.2 and later
  - Supports openPGP standard
  - OpenPGP exploits 4096-bit RSA keys (z10, zEnterprise)

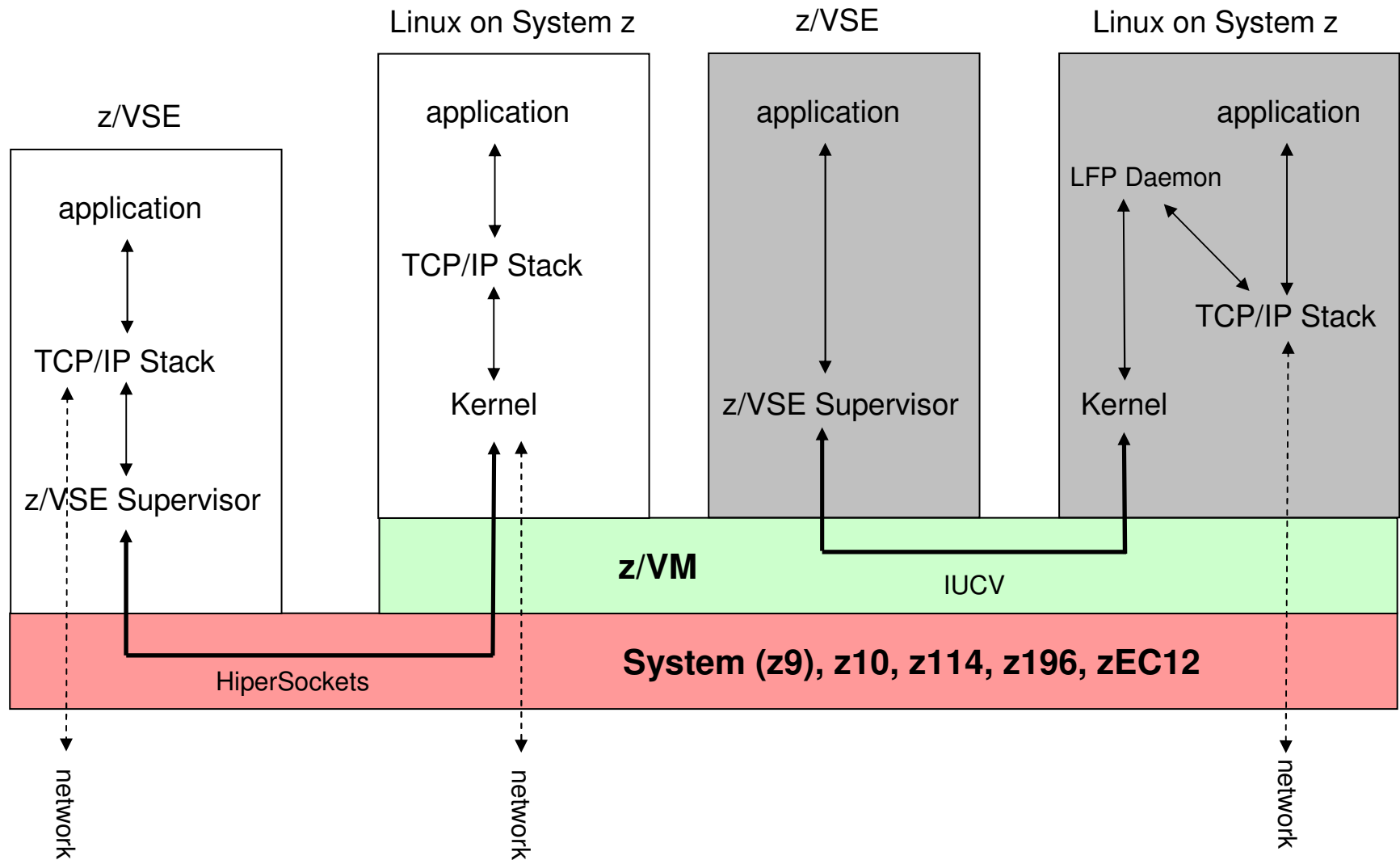
## *TCP/IP Connectivity for z/VSE*

- TCP/IP connectivity for IPv4 communication
  - TCP/IP for VSE/ESA 1.5 – licensed from CSI International
  - IPv6/VSE – licensed from Barnard Software, Inc. (BSI)
  - Linux fast path (LFP)
  
  - EZA socket interface, new function calls
  - LE/C socket API
  
- TCP/IP connectivity for IPv6 communication
  - IPv6/VSE
  - Linux Fast Path (z/VSE 5.1)
  
  - EZA socket interface, new function calls
  
- All TCP/IP stacks can run concurrently within one z/VSE system

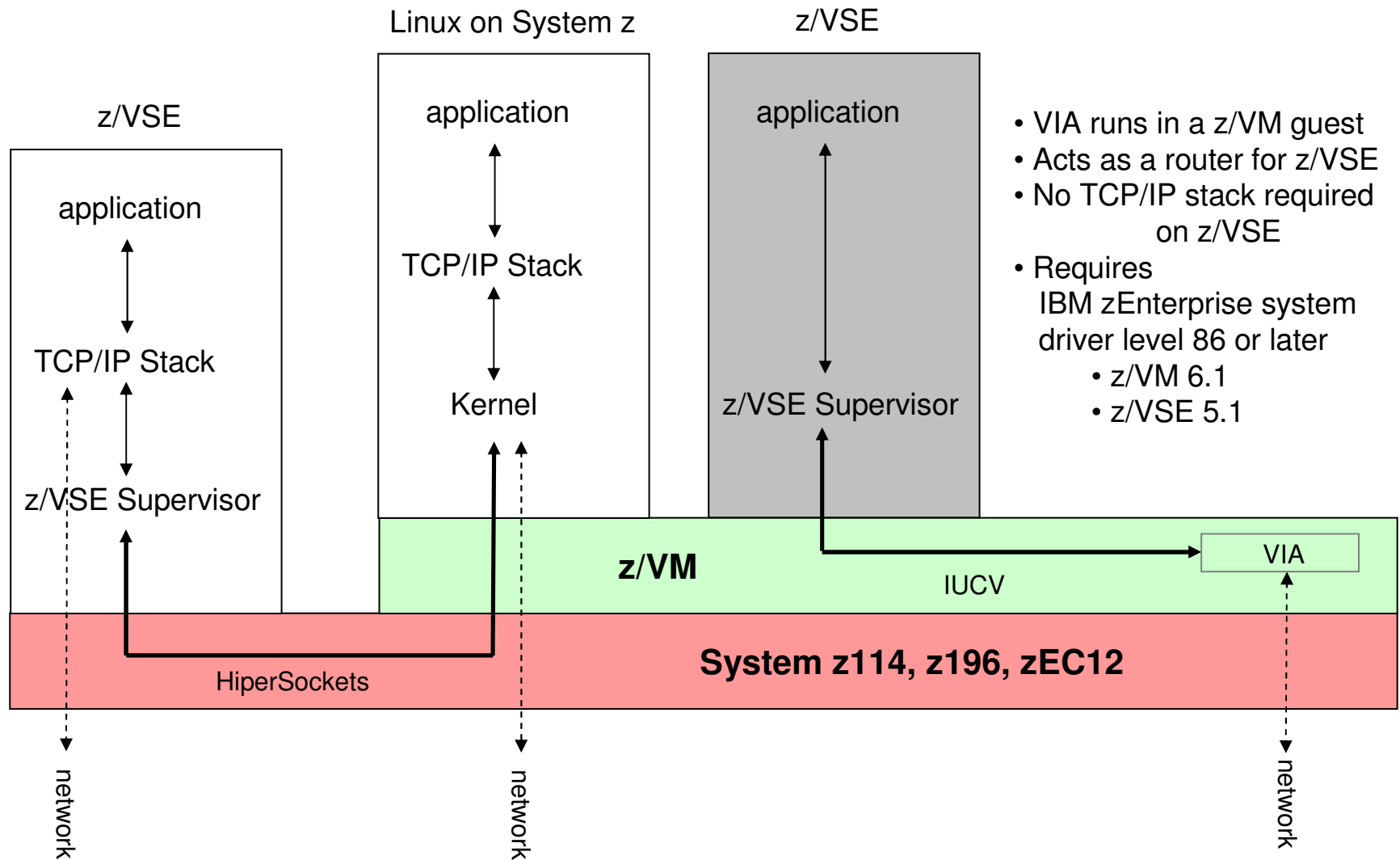
## *Linux Fast Path (LFP)*

- Routes IPv4 or IPv6 socket request to Linux on System z
  - Without using the local TCP/IP stack
- LFP on z/VM (z/VSE 4.3 or higher)
  - Uses an IUCV connection between z/VSE and Linux on System z
  - Both – z/VSE and Linux – need to be z/VM guests of the same z/VM
- Linux Fast Path using z/VSE z/VM IP Assist (VIA – z/VSE 5.1)
  - Both – z/VSE need to be a z/VM guests
- Linux Fast Path in LPAR (z/VSE 5.1 + enhancements – GA 06/15/2012)
  - LFP daemon on Linux forwards the socket request to the Linux TCP/IP stack
- LFP is transparent to IBM socket APIs
  - Supported APIs: LE/C socket API, EZA socket / EZASMI interface, ...
  - Transparent to IBM applications (DB2 client, Connectors, Power PNET)
  - No standard TCP/IP applications (Telnet, FTP, ...) provided
  - IPv6/VSE: TCP/IP applications can exploit LFP
- Provided with the z/VSE base product – no additional charge

## Linux Fast Path (LFP) - Linux Fast Path on z/VM



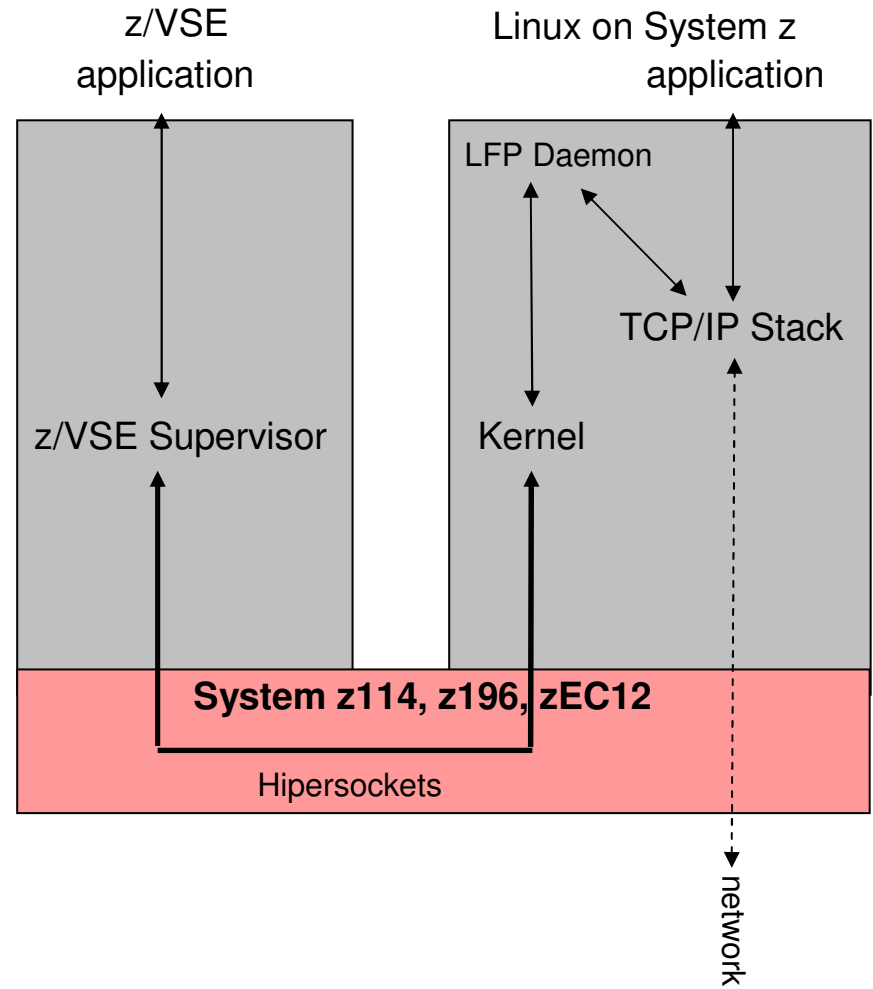
## LFP - z/VSE z/VM IP Assist (VIA) – z/VSE 5.1





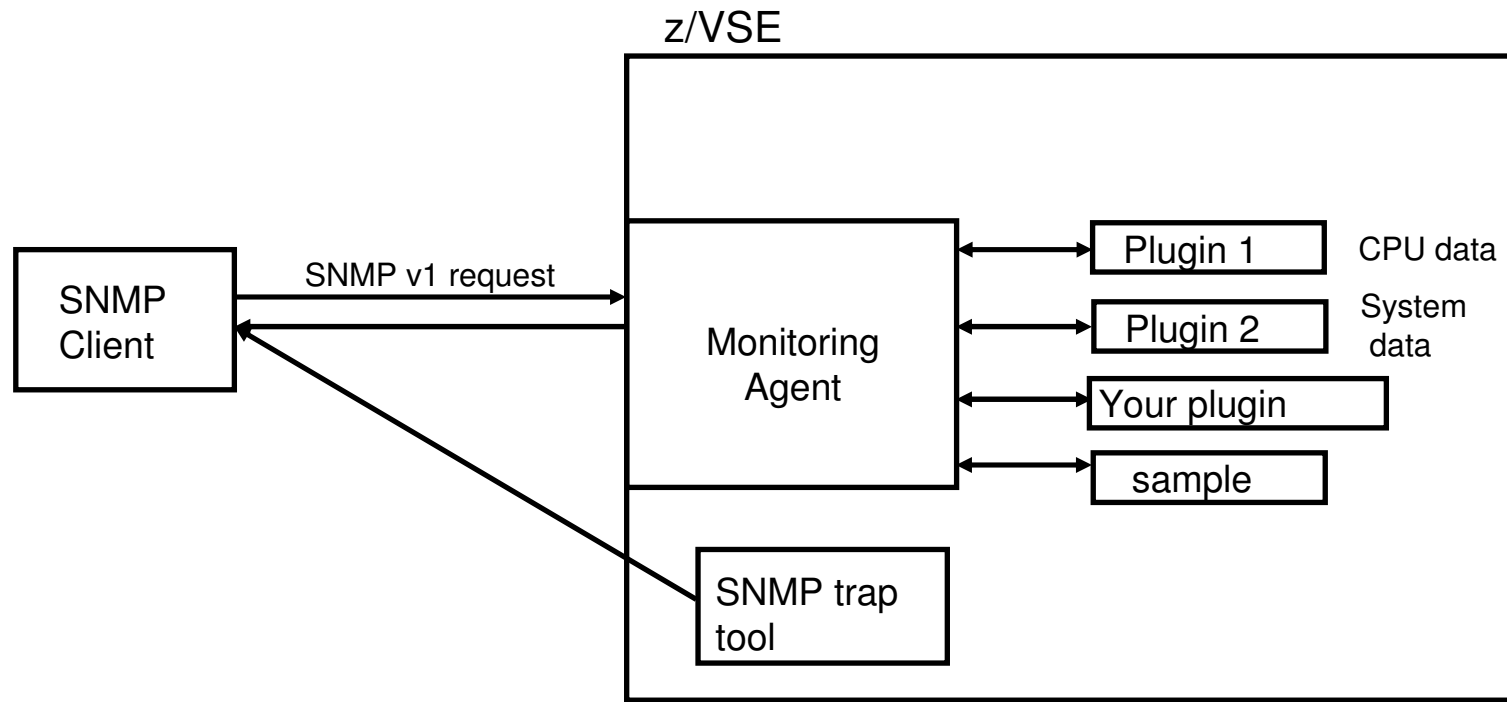
## Linux Fast Path (LFP) – Linux Fast Path in LPAR

- No TCP/IP stack required on z/VSE
- System requirements
  - Supported on zEnterprise
    - Exploits HiperSockets completion queue
  - Linux on System z distribution (RHEL, SLES)
  - Available with z/VSE 5.1.1 (z/VSE 5.1 + PTF)



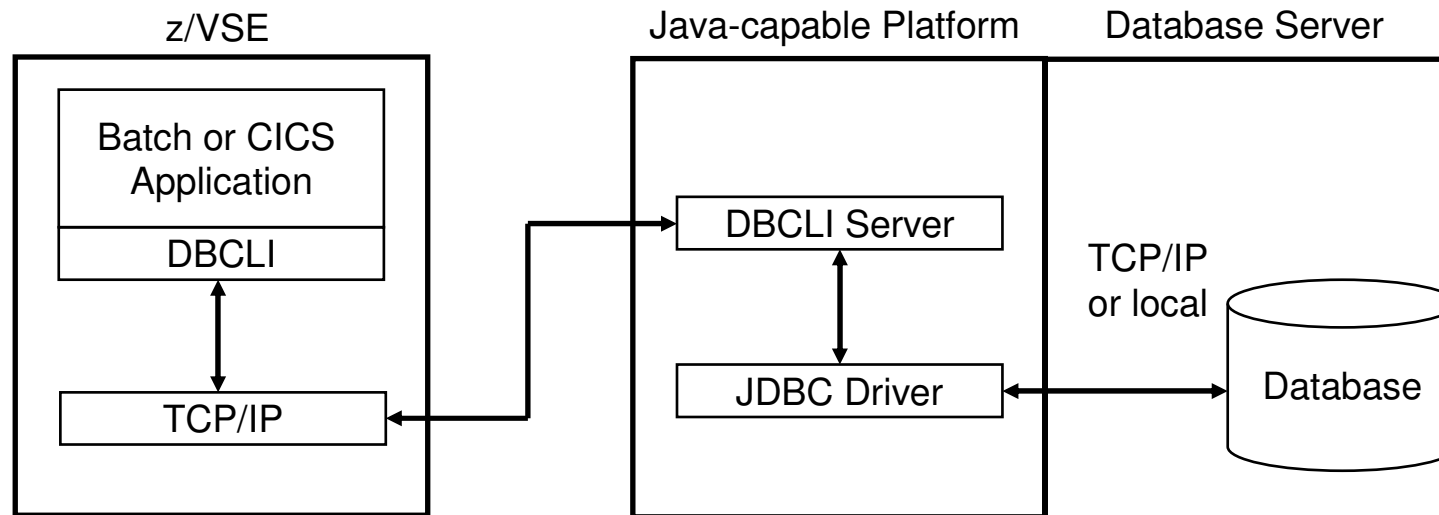
## Connectors

- SNMP Connector
  - SNMP (Simple Network Management Protocol) V1 protocol
  - Allows to monitor system events on a network
  - Clients can retrieve z/VSE specific system and performance data
  - Performance monitors may collect the data for planning purposes
  - **SNMP Trap Client Extension monitoring – API**



## Data Base Connector

- Available since June 15, 2012
- Provides a database call level interface (DBCLI)
  - For HLASM, COBOL, PL/I, C or REXX applications
- Connects to a remote database
- Consists of
  - DBCLI client on z/VSE
  - DBCLI server on any Java-capable platform



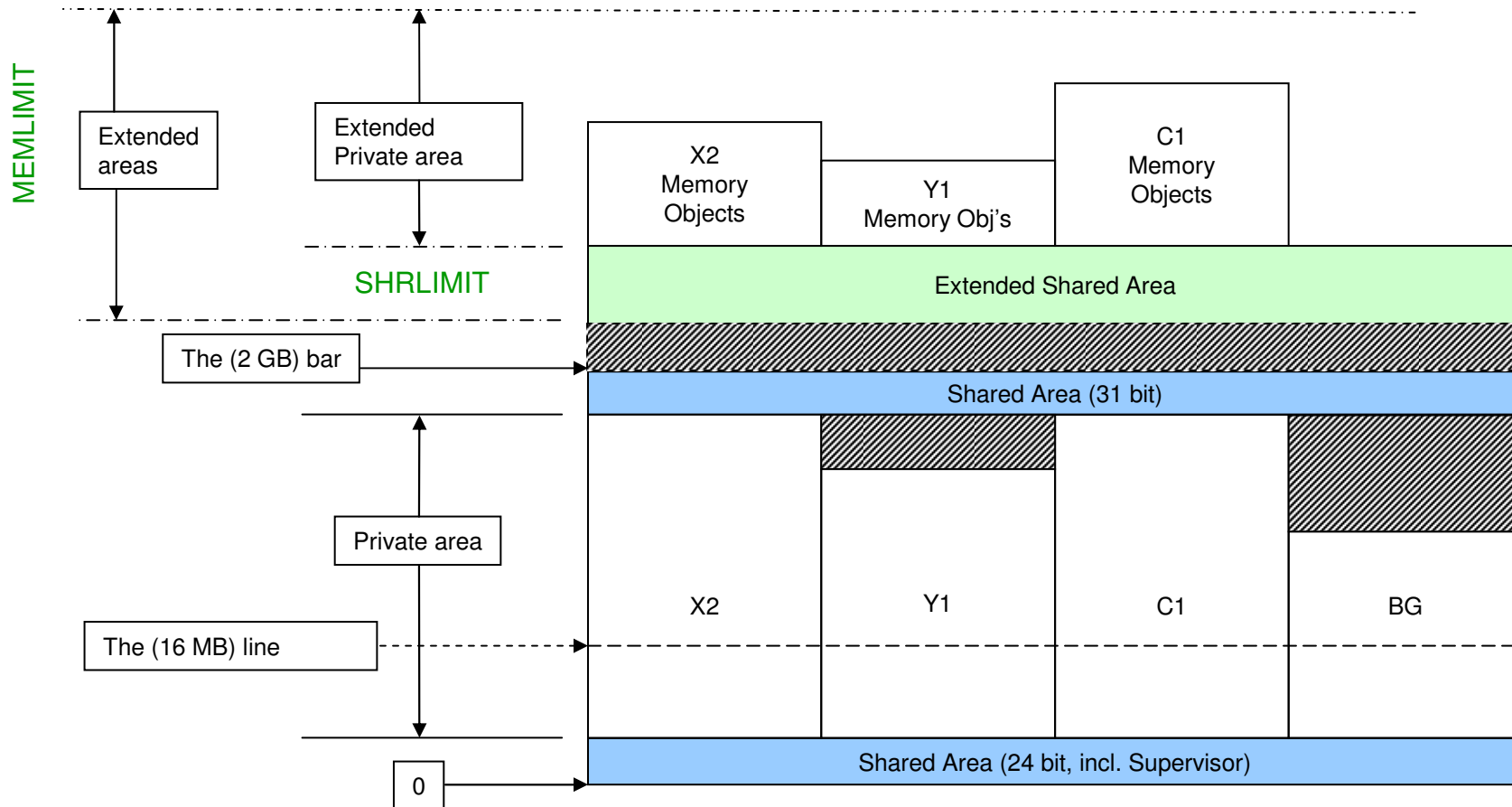
## *z/VSE 5.1: 64 bit virtual*

- Support 64 bit virtual addressing
- 64 bit area can be used for **data only**
  - No instruction execution above the bar
- **z/OS affinity:** APIs (IARV64 services) - to manage memory objects – compatible with z/OS
  - Private memory objects for use in one address space
  - Shared memory objects to be shared among multiple address spaces
- Maximum VSIZE still limited to 90 GB
- Advantages:
  - Eases the access of large amounts of data
    - E.g. instead of using and managing data spaces
  - Reduces complexity of programs
    - Data contained in primary address space
  - Chosen design has no dependencies to existing APIs, minor impact on existing system code

## *IARV64 Macro*

- IARV64 macro - ported from z/OS – provides services to
  - Creates and frees storage areas above the bar
  - Manage the physical frames behind the storage
  
- Programs use the IARV64 macro to obtain memory objects
  
- Services (IARV64 REQUEST=):
  - GETSTORE – create a private memory object
  - GETSHARED – create a memory object that can be shared across multiple address spaces
  - SHAREMEMOBJ – request that the specified address space be given access to a shared memory object
  - DETACH – free one or more memory objects
  - PAGEFIX – fix pages within one or more private memory objects
  - PAGEUNFIX – unfix pages within one or more private memory objects
  
  - GETSTORE / GETSHARED KEY parameter (default key = key of caller)
    - Unauthorized caller can set key 9 (all tasks can run in key 9)
    - Authorized callers can set any key

## 64 bit virtual - Address Space Layout



## *CICS Explorer for z/VSE*

- Announced 04/03/2012, GA 06/15/2012
  
- CICS Explorer – The new face to CICS
  - New system management framework for CICS TS
  - Consists of CICS Explorer client and a CICS TS server extension
  - CICS Explorer client
    - Read-only capabilities
    - Eclipse-based user interface on workstation
    - Connects to CICS TS via TCP/IP - Communication via HTTP requests
  - CICS Explorer server extension
    - Delivered as PTF for CICS TS for VSE/ESA 1.1.1
    - z/VSE 5.1 only

IBM CICS Explorer - C:/CICS-Work

File Edit Projekt Operations Definitions - Suchen Window Help

ISC/MRO Con TCP/IP Servic Terminals Programs Transactions TS Queues Transaction Cl Tasks Files TD Queues

CNX0211I Context: PRODCICS. Resource: PROGRAM. 1.603 records collected at 28.09.2012 18:04:08

Region	Name	Status	Use Count	Concurrent Us...	Language	Share Status	CEDF Status	NEWCOPY Status
PRODCICS	\$EDTCPM	✓ ENABLED	0	0	C	N/A	CEDF	NOTREQUIRED
PRODCICS	\$EDTCPV	✓ ENABLED	0	0	C	N/A	CEDF	NOTREQUIRED
PRODCICS	ARXITCPU	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	BSTADMII	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEBINT	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEBNATX	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECBLDY	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECCICS	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECDATX	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECMI	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECOPT	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECRHP	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECXITA	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECXTAN	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEECZST	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDATE	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDATM	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDAYS	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDCOD	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDSHP	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEDYWK	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEENV	✓ ENABLED	0	0	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV000	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV001	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV002	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV003	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV004	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV005	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV006	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV007	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV008	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV009	✓ ENABLED	0	0	NOTDEFINED	N/A	CEDF	REQUIRED
PRODCICS	CEEEV010	✓ ENABLED	1	1	ASSEMBLER	N/A	CEDF	NOTREQUIRED
PRODCICS	CEEEV011	✓ FNABLD	0	0	NOTDEFINED	N/A	CEDF	REQUIRED

IZE0100I Connected user SYSA to host l...m1.boeblingen.de.ibm.com on port 27283 | Inx



## *z/VSE 5.1.2*

- z/VSE 5.1.2 includes z/VSE V5.1 - Additional enhancements: Ann 03/02/2013, GA 06/14/2013
  - Support of zEC12, zBC12
    - Configurable Crypto Express4S
    - OSA Express4S / OSA Express5S (1000BASE-T)
  - Support of IBM System Storage
    - IBM System Storage TS1140 (3592 E07)
    - IBM System Storage TS7700 Virtualization Engine Release 3.0
    - IBM System Storage DS8870
    - IBM System Storage Storwize V7000 Release 6.4
  - 64-bit input/output (I/O) processing for applications
  - HiperSockets configurable input buffers
  
- z/VSE 5.1.2 – latest Recommended Service Level (RSL): June 18, 2013

## *z/VSE 5.1.2 ...*

- z/VSE 5.1.2 includes z/VSE V5.1 - Additional enhancements ...

- System dump support for memory objects
- z/VSE Database connector enhancements
- OpenSSL update
- IPv6/VSE V1.1 enhancements
  - o Secure Sockets Layer (SSL) for secure data transmission
  - o Layer 2 support for OSA Express devices for IPv4 links

– Statement of general direction (SOD) of April announcement:

- IBM intends
  - o in the future to enhance IBM CICS Explorer for IBM CICS Transaction Server for VSE/ESA to provide updates to CICS resources.
  - o to add functionality that allows initial installation of z/VSE without requiring a physical tape.

All statements regarding IBM's plans, directions, and intent are subject to change or withdrawal without notice.

## *64 bit virtual I/O for applications*

- Available with z/VSE 5.1 APAR DY47419
- SYSCOM bit IJBIO64E in IJBIOFL1, if 64 bit virtual I/O support available
  
- I/O buffers can now be created above the bar (above 2 GB)
- I/O buffers in **private memory objects** supported only
- I/O control blocks to be allocated below the bar (in 31 bit storage)
  
- Supported for ECKD devices
  
- CCB macro with a new parameter: IDAW=FORMAT2
- CCB points to a Format-0 or Format-1 CCW
- CCW with IDA-flag and data address point to a single Format-2 IDAW containing a 64 bit virtual address.
  
- I/O buffer will be TFIXed by I/O Supervisor, not necessary to PFIx the I/O buffer
  
- Not supported for
  - FBA / SCSI devices
  - Tape devices
  - LIOCS

## *System Dump support for Memory Objects*

- System dump may be taken in case of abnormal termination dependent on JCL options
  - New JCL option MODUMP, NOMODUMP
- If program running in 64 bit mode and registers hold 64 bit addresses
  - The dump routine will take 4K on either side of this address
- Memory object dumps are written to SYSLST only
  - Partitions dumps will be written to dump library or SYSLST dependent on OPTIONS
- New standard option: STDOPT SADMPSMO=YES|NO
  - Controls, if standalone dump should include **shared memory objects**
- (Standard) option STDOPT SADUMP=(n,m,o)
  - Controls, if standalone dump should include **private memory objects**

## *HiperSockets Configurable input buffers*

- Available as APAR DY47394
- QDIO input queue buffers were set to 8 before
- More QDIO input buffers can improve performance
- In z/VSE you may increase the number of buffers to up to 64
- With a new configuration option you may select 8 (default), 16, 32 or 64 in the configuration file (IJBONCONF.PHASE)
- QDIO input buffers are allocated in 31 bit partition GETVIS space
- The buffers are to be PFIxed.
  - The limit for PFIx storage has to be defined with the JCL SETPFIx command
- QDIO input buffers are available for HiperSockets and OSA Express (CHPID OSD)

## *OpenSSL Update*

- openssl support for z/VSE is available since z/VSE 5.1
- November 2012 updated with APAR DY47397
  
- openssl code level: openssl 1.0.0d
- z/VSE supports a subset of openssl functions
  
- IPv6/VSE and Linux Fast Path exploit openssl
  
- z/VSE supports the GSK (z/OS SSL API) and openssl API

## *z/VSE Database Connector (DBCLI) Enhancement*

- DBCLI connection pooling
  - Connection pooling of database connections for DBCLI applications on CICS TS
  - Pooling and reusing existing connection
    - Instead to establish a new connection
  - CICS DBCLI application can request to use a connection pool by setting a new DBCLI environment variable
  - SSL connections are not supported
  
- If connection pooling is enabled
  - CONNECT function will first check if a matching connection is available (same host name/IP address, port, DB name, user-ID, password, ...)
  - If available, the connection will be reused
  - If no active connection available, a new connection is established
  - During DISCONNECT the connection is put back to the connection pool

## *z/VSE Statement of Direction (SOD)*

- IBM CICS Explorer to provide updates to CICS resources
  - Update resources as you would do with transactions on your CICS terminal
  - Enable / disable CICS resources
  - Change selected CICS definitions
  - ....
  
- Initial installation of z/VSE without requiring a physical tape
  - Use an install image on a DVD or download it from the web (Shopz)
  - Create an installation disk
  - Base install z/VSE from installation disk



## *z/VSE 5.1 Migration Considerations*

- Migrate to z/VSE 5.1.2 + Recommended Service Level (RSL) of June 2013
- VSE/VSAM
  - Migration of VSAM catalogs
    - Don't use Fastcopy to migrate VSAM catalogs
    - Flashcopy all VSAM volumes allocated to a VSAM catalog
    - Migrate all recoverable VSAM catalogs to standard VSAM catalogs
      - o **Before** the migration to z/VSE 4.3 or z/VSE 5.1
      - o PTF for “automatic” migration
- CICS/VSE
  - CICS Coexistence Environment removed
  - DL/I 1.12 replaces DL/I VSE 1.11 and DL/I DOS/VS 1.10
  - CICS/VSE 2.3
    - No DL/I support for CICS/VSE on z/VSE 4.3
    - No longer on base tapes
    - Not supported on z/VSE 5.1
    - End of service 10/31/2012
- See also Live Virtual Class on „z/VSE Release Migration Considerations”
  - Presentation is on <http://www-03.ibm.com/systems/z/os/zvse/education/#completed>

## *News related to z/VSE (since last z/VSE Announcement)*

- September: zBC12 GA
  - z/VSE Preventive Service Planning (PSP) bucket for details
  - [ibm.com/vse](http://ibm.com/vse) -> About z/VSE Status -> z/VSE server support
  - OSA/SF configuration on HMC – OSA-Express 4S / 5S only
    - For CHPID type OSE
  
- July: z/VM 6.3 GA
- July: zBC12 announced
- July: z/VSE Collection Kit available
- July: IPv6/VSE decreased monthly workload license charges
  
- June: z/VSE 5.1.2 Recommended Service Level (RSL) available
- June: z/VSE 5.1.2, including z/VSE additional enhancements available
  - Now on DVD-ROM
  
- May: New z/VSE web page layout
  
- April: z/VM 6.1 end of service
- April: z/VSE 5.1 additional enhancements announced

## *Documentation related to z/VSE*

- z/VSE Collection Kit July 2013
  - Available for download in IBM Publication Center
  - Electronic only, not on physical DVD
  
- Documentation of z/VSE releases
  - z/VSE Internet Library on <http://www.ibm.com/systems/z/os/zos/bkserv/vse.html>
  
- IBM Redbooks
  - Draft: Setup Linux on System z for Production, SG24-8137
  - Redbook page with new IBM System z mainframe Redbooks
    - zEC12 / zBC12 Technical Guide, SG24-8049 / SG24-8138
    - IBM System z Connectivity Handbook, SG24-5444

## *z/VSE Requirements*

- You may submit requirements at conferences (WAVV, GSE, ...)
- ... or via our z/VSE requirements page:
  - <https://www-03.ibm.com/systems/z/os/zvse/contact/requirement.html>
- ... or you may enter **CICS Transaction Server** requirements via the
  - Request for Enhancement (RFE) database:
    - <http://www.ibm.com/developerworks/rfe/>
  - Please select the following for z/VSE-CICS requirements:
    - *Brand = WebSphere*
    - *Product family = Transaction Processing*
    - *Product = CICS Transaction Server*
    - *Component = Runtime or Explorer*
    - *Operating system = IBM z/VSE*

## Be Social with z/VSE



**z/VSE Homepage:**  
[www.ibm.com/zVSE](http://www.ibm.com/zVSE)

 **Twitter**  
[www.twitter.com/IBMzVSE](http://www.twitter.com/IBMzVSE)

 **Ingolf's z/VSE Blog**  
[www.ibm.com/developerworks/mydeveloperworks/blogs/vse/](http://www.ibm.com/developerworks/mydeveloperworks/blogs/vse/)



**Join System z Advocates (Subgroup z/VSE)**  
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**Read at the IBMs System z Blog**  
[www-304.ibm.com/connections/blogs/systemz/](http://www-304.ibm.com/connections/blogs/systemz/)

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**Watch on YouTube**  
[www.youtube.com/user/IBMSystemZ](http://www.youtube.com/user/IBMSystemZ)

## *More Information*

... on VSE home page: <http://ibm.com/vse>

- Ingolf's z/VSE blog: <https://www.ibm.com/developerworks/mydeveloperworks/blogs/vse>
- **Hints and Tips for z/VSE 5.1:**
  - <http://www.ibm.com/systems/z/os/zvse/documentation/#hints>
- 64 bit virtual information:
  - IBM z/VSE Extended Addressability, Version 5 Release 1
  - IBM z/VSE System Macro Reference, Version 5 Release 1
- CICS Explorer: <http://www.ibm.com/software/htp/cics/explorer/>
- IBM Redbooks:
  - Introduction to the New Mainframe: z/VSE Basics  
<http://www.redbooks.ibm.com/abstracts/sg247436.html?Open>
  - Security on IBM z/VSE – updated  
<http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/sg247691.html?Open>
  - z/VSE Using DB2 on Linux for System z  
<http://www.redbooks.ibm.com/abstracts/sg247690.html?Open>